



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,184	12/21/2004	Andreas Nordbryhn	RR-575 PCT/US	4532
20427	7590	10/10/2007	EXAMINER	
RODMAN RODMAN 10 STEWART PLACE SUITE 2CE WHITE PLAINS, NY 10603			PARK, EDWARD	
		ART UNIT	PAPER NUMBER	
		2624		
		MAIL DATE	DELIVERY MODE	
		10/10/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/519,184	NORDBRYHN, ANDREAS
Examiner	Art Unit	
Edward Park	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-7 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-7 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 21 December 2004 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date <u>12/21/04</u> .	6) <input type="checkbox"/> Other: _____.

## DETAILED ACTION

### *Specification*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Furthermore, the title appears to have a typographical error. The word, “Recognising”, should be corrected.

### *Claim Objections*

2. **Claims 1-7** are objected to because of the following informalities: Claim 3, the phrase, “sides edges”, appears to have a typographical error. Claims 1-7, the words, “recognisze”, “characteriszed”, appear to have typographical errors. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-5, 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordbryhn (US 5,898,169) with Rondinelli et al (US 7,123,777 B2), and further in view of Krichever et al (US 2001/0042789 A1).

Regarding **claims 1, 2, 5**, Nordbryhn teaches a device for recognizing a container, such as a bottle or a can, comprising a camera (Nordbryhn: figure 2, numeral 4) and light emission means (Nordbryhn: figure 2, numeral 1) arranged for imaging a selected portion of the container (Nordbryhn: figure 2, numeral 5), said camera and light emission means being connected to a processor (Nordbryhn: figure 9, numeral 17) or the like adapted for recognition, based on a camera-recorded image, of special features related to the container (Nordbryhn: figure 9, numeral 19), characterized in that said imaging is effected by at least a first pair, where the mirrors in each pair are facing one another and where the pairs are positioned on opposite sides of the optical axis of said camera (Nordbryhn: figure 10, numerals 11, 24)

Nordbryhn does not teach imaging is effected by a second pair of mirrors, one mirror of the first pair being fixedly positioned adjacent to one mirror of the second pair, at an angle to said axis, whereby said selected portions are shown as respective mirror images in the respective mirror and two areas along the longitudinal direction of the container, optionally including one or both end faces, are imaged simultaneously by the camera, mirror surfaces in each pair are positioned obliquely relative to each other, and line of intersection between the mirror faces adjacent to the optical axis of the camera is essentially perpendicular to the optical axis, these mirror faces being positioned symmetrically and directed in the opposite direction to each other.

Rondinelli teaches a second pair of mirrors (“multiple mirrors may be combined in particular configurations”; Rondinelli: col. 28, lines 29-38).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Nordbryhn reference to utilize a second pair of mirrors as suggested by

Rondinelli, to “increase the resolution and/or available field of view of the resulting image or images” (Rondinelli: col. 28, lines 29-38).

Krickever teaches a first pair being fixedly positioned adjacent to one mirror of the second pair, at an angle to said axis (Krickever: figure 3, letter #B), whereby said selected portions are shown as respective mirror images in respective mirror and two areas along the longitudinal direction of the container (Krickever: figure 3), optionally including one or both end faces, are image simultaneously by the camera (Krickever: figure 3, numeral 26), mirror surfaces in each pair are positioned obliquely relative to each other (Krickever: figure 3) and line of intersection between the mirror faces adjacent to the optical axis of the camera is essentially perpendicular to the optical axis, these mirror faces being positioned symmetrically and directed in the opposite direction to each other (Krickever: figure 3).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Nordbryhn with Rondinelli combination to position the mirrors accordingly, obliquely relative to each other, perpendicular, symmetrical, and opposite as suggested by Krickever, to allow the device to image the object/container “from two sides” (Krickever: paragraph [0004]).

Regarding **claims 3 and 4**, Nordbryhn, Rondinelli, with Krickever combination discloses all elements as mentioned above in claim 2. Nordbryhn, Rondinelli, with Krickever combination does not teach positioning so that one of the sides edges meet and offset relative to each other along the optical axis.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to positioning so that one of the sides edges meet and offset relative to each other along

the optical axis. Applicant has not disclosed that positioning so that one of the sides edges meet and offset relative to each other along the optical axis provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with positioning so that one of the sides edges meet and offset relative to each other along the optical axis because positioning does not require both edges to touch or utilize offsets in order for the imaging of two sides of an object/container. There are many variations of mirror positions to resolve the same issue of imaging two sides of a container/object.

Therefore, it would have been obvious to combine to one of ordinary skill in this art to modify Nordbryhn, Rondinelli, with Krickever combination to obtain the invention as specified in claim 3 and 4.

Regarding **claim 7**, Nordbryhn teaches comparator adapted to recognize, on the basis of the image selected by the processor, the respective areas along the longitudinal direction of the container on comparison with a reference image (Nordbryhn: figure 9, numerals 17, 19; col. 9, lines 18-40).

5. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Nordbryhn (US 5,898,169), Rondinelli et al (US 7,123,777 B2) with Krickever et al (US 2001/0042789 A1), and further in view of Steidel et al (US 6,137,900).

Regarding **claim 6**, Nordbryhn, Rondinelli, with Krickever combination discloses all elements as mentioned above in claim 1. Nordbryhn further teaches imaging is carried out when the container is on a conveyor (Nordbryhn: figure 2, numeral 6). Nordbryhn does not teach a reverse vending machine for beverage containers.

Stediel teaches a reverse vending machine for beverage containers (Stediel: figure 1).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Nordbryhn, Rondinelli, with Krichever combination to utilize in a reverse vending machine as suggested by Stediel, to detect and classify certain types of containers that are processed by the device.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Park whose telephone number is (571) 270-1576. The examiner can normally be reached on M-F 10:30 - 20:00, (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on (571) 272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Edward Park

Examiner  
Art Unit 2624

/Edward Park/



BRIAN WERNER  
SUPERVISORY PATENT EXAMINER